

| *A practicing pediatrician speaks on how physicians can help educate their patients in accident prevention.*

Accidents and Poisonings in Children

By JULIAN P. PRICE, M.D.

ACCIDENTS and accidental poisonings are the leading cause of death in this country in children over 1 year of age. This is a condition that we physicians find difficult to accept, accustomed as we are to think of death in terms of disease. But accept it we must for the public expects leadership from the medical profession and from the family physician in matters of health, and any condition which causes 1 death out of every 3 in our children is certainly in the field of health.

Statistics are usually boring and quickly forgotten, so I will present only a few to show the problem which confronts us. It has been estimated that every year in the United States some 2,000,000 children are involved in accidents requiring medical attention. Of this number, 12,000 die—and 40,000 to 50,000 are permanently disabled or crippled. There is no way of determining the number of children who are accidentally poisoned, but we know that 1,250 under the age of 21 and 400 under the age of 5 die from this cause each year.

What can the medical profession do, and what can the individual physician do to reduce

the toll of accidents and poisonings? In attempting to answer this question I do not pose as an expert, but speak as a practicing pediatrician who has become keenly interested in the subject and who has evolved certain ideas from the writings of others and from his own personal experience.

Fields for Action

There are three special fields in which we should exert our efforts. First, we need studies and investigations to give us more basic information. Research on accidents in adults has been conducted for some time, but only recently has study been made of accidents in children. What has been done has been encouraging and enlightening—such as the work of Press, Wheatley, Dietrich, Arena, Shaffer, Dennis and Kaiser, and others—but we need more.

One phase of the problem which needs particular attention is that of the accident-prone individual. Langford and his associates have made a preliminary report on the study of nine such children. No definite conclusions can be drawn from this small number, but some of the observations and ideas offered are most suggestive. It is to be hoped that the work will be continued and enlarged. It is extremely important that we be able to recognize and help the accident-prone child before rather than after he runs into trouble.

The physician needs help to handle acci-

Dr. Price is a practicing pediatrician in Florence, S. C., and pediatrician at the McLeod Infirmary in Florence. This address was given at the annual meeting of the American Academy of General Practice in Los Angeles, February 1955.

dents and poisonings more effectively. This is a second field of activity which needs developing. If a child cuts his leg, the accepted procedure is to clean the wound, suture it, and give tetanus toxoid or antitoxin. But when a child is extensively burned, the problem of what to do is not so simple. Should the burn be cleaned? If so, how? Should the child be given a general anesthetic? What type of dressing should be applied? Does the child need sedation, plasma, electrolyte or glucose solution, or blood? Upon the answer to these questions may depend the life of the child.

When a little boy drinks kerosene—one of the more popular drinks among children these days—a recognized method of treatment is to empty the stomach, give an antibiotic, and watch for signs of chemical irritation of the lung. But what of the little girl who eats rat poison? What is the toxic ingredient in this particular preparation? Is there an antidote? What are the complications to be watched for? An immediate answer to these questions will help materially.

Burns, fractures, penetrating wounds, lacerations, shock, intracranial hemorrhage, and ruptured viscera are some of the conditions which may be encountered in the accident patient. Roach powder, pesticides, medicines, floor polish, moth balls, cosmetics are but a few of the poisons which may be eaten by the little child.

To help the physician to be more effective in his care of victims of accidents and poisonings, I would suggest that more time be given to these conditions in the training of interns, in general meetings such as this, and in post-graduate courses for the general practitioner and for the pediatrician. Further, I would urge that every doctor's office and every emergency room in a hospital have available for quick reference not only a textbook on traumatic surgery but also 1 or 2 reference books which discuss the common household items which might be implicated in poisonings. Two such volumes which I have found valuable are *Symptoms and Treatment of Acute Poisoning* by G. H. W. Lucas, and *Handbook of Pediatric Medical Emergencies* by Desanctis and Varga.

A recent development which should prove of considerable value in the realm of accidental

poisonings is the establishment of poisoning control centers in our larger communities. The first such center is now in operation in Chicago, and others are being established in Boston, New York, and Cincinnati. These centers will treat poisonings, conduct special studies as to their cause, and promote their prevention. They will also serve as information centers to which the practicing physician can turn for help at any time.

The third field of activity to which we must bend our effort is that of education. The only way in which we can hope to reduce the number of accidents and poisonings in children is through prevention, and prevention hinges on educating the public about the need and methods of forestalling accidents.

Many national organizations have engaged in educational efforts—the National Safety Council, the American Automobile Association, the American Red Cross, the National Board of Fire Underwriters, and the National Committee for Traffic Safety. Public health associations have carried on special campaigns. The American Academy of Pediatrics, through its Committee of Accident Prevention, has promoted State and local conferences. It has stimulated the formation of accident prevention committees, and, with the assistance of the Metropolitan Life Insurance Company, has prepared a number of educational pamphlets. The American Medical Association has long been concerned with accidental trauma and more recently has entered the field of poisonings through its Committees of Toxicology and Pesticides.

These organizations and others have done yeoman service, and they need our thanks for what they have accomplished and our support as they continue their work. But their efforts alone are not sufficient. They must be joined by that individual who, in my opinion, is the greatest single source of strength in our educational effort, the practicing physician. It is he who can most easily influence the two key individuals in our war against accidents and poisonings—the parent and the child.

It is my sincere hope that medical organizations will spearhead an educational effort in which the parents of America, along with their children, will be taught the fundamentals of

preventing accidents and poisonings. This education should be carried on where it will be most valuable—in the office of the physician and in the home of the child. And it should be carried on by the one whose word would be most heeded—the family physician.

What Physicians Can Do

There are a number of ways in which the practicing physician can participate in such an educational effort. I would like to make six specific suggestions—suggestions culled from the experience of others and from my practice.

The physician must become safety-minded in the prescribing of drugs. Specific instructions should be given to the family and to the druggist. The mother should be told what the drug is for and how it is to be given. General instructions on the label should be avoided. "A spoonful as needed," may be understood the day it is prescribed, but a month later the parents may have forgotten the indications for its use as well as the size of the spoon, with regretful results.

The amount of a drug prescribed should be limited to a quantity sufficient for 2 or 3 days only. Recently I saw a prescription written for 6 ounces of a sulfa preparation for a child with a mild upper respiratory infection. I pictured what might happen. The child would probably be well by the time he had taken 2 or 3 ounces. The half filled bottle would then be put in the medicine chest or on the windowsill in the bathroom. There it would sit until it could be used for some subsequent illness in the family, or else it would be found by some adventure-seeking youngster and gleefully drunk.

I may or may not have been right in this particular instance, but I know that the medicine closets of many families in this country are cluttered with bottles half filled with medicine or boxes partially filled with tablets which are potential poisoners of children. To prescribe only what is needed for a specific illness and that only for a specific period of time is good medicine—it is also one of the first steps in preventing drug poisonings.

The physician should take time to discuss accidents and poisonings with parents when they bring their children to his office. This is of

particular importance when the child is between the ages of 1 and 4—the danger age. Mention should be made of the type of activity in which the child is likely to participate such as crawling, climbing, investigating with the fingers, and putting objects in the mouth. The parent should be shown how these activities can lead to trouble if ordinary precautions are not taken.

Attention should be called to the special care which should be taken near such items as stoves, floor furnaces, hot water, stepladders, and electrical outlets. The need for keeping such articles as liniments, medicines, fingernail polish, floor wax, and insecticides in a place where the child cannot get to them should be emphasized. The parents should be urged to make a survey of the yard and playground to see that hazards such as broken glass, wooden stakes, and sharp tools are not present.

The children themselves should be talked to about accidents and poisonings. Many a youngster will listen with more attention to his doctor than he will to his parents. They should be told of the need for staying out of the street, of the care which they must exercise when riding tricycles and bicycles, of the dangers of playing with matches and firecrackers. They should be warned against taking medicines of their own accord. Older children, particularly boys, should be told of the need for caution with regard to swimming and diving—never to go swimming alone and never to dive into unknown water.

Literature should be available in the physician's office for parents to read and to take home for study. Quantities of home and child safety materials are available from many of the major insurance companies. Pamphlets on specific phases of safety education can be obtained from the National Safety Council. An excellent checklist for parents has been prepared by the American Academy of Pediatrics. Published information of this type, or perhaps material especially prepared by the American Academy of General Practice, needs to be placed in every general practitioner's office. There is no telling how much of this would be read, but I have yet to see a parent who did not appreciate an article or pamphlet on safety when I presented it with the request that it be taken home and studied.

The physician should investigate the home and yard environment when making calls. Are the stairs safe for the youngsters? Are there proper safeguards around the stove and fireplace? Are cigarette lighters or matches lying within easy reach of the children? Are the window screens securely fastened? Is there a special place for medicines?

These are but a few of the questions which the physician with a keen eye and inquiring mind will ask himself as he goes in to see the sick child. From what he sees, the physician can give pertinent advice to the parents.

The physician must become a crusader in the cause of accident and poison prevention. He must convince himself that accidents and poisons are the number one problem in child health today—and then convince others. In the office, in the home, at meetings of the PTA, in public gatherings, whenever and wherever the opportunity presents itself, he must discuss the problem and enlist the support of others.

Typhoid fever was not eradicated with the discovery of typhoid vaccine; it only disappeared as the public was made to understand the value of the vaccine and was willing to have it injected into them. In the same way, accidents and poisonings will not be diminished materially through programs and studies. They will only be reduced as those who are pri-

marily concerned—physicians, parents, and children—appreciate and understand the problem and put into practice those measures which are needed to bring about a change.

There is nothing unusual or dramatic in the suggestions presented—it is the accident and not its prevention which is sensational. I am convinced, however, that if every member of this great organization would put these suggestions into effect there would be a marked reduction in the number of accidents and poisonings in children.

In conclusion, I would like to stress the need for joint effort in our fight against the number one killer of our children. The task is too large for any single organization or for any group of individuals. It challenges the combined effort of all. Local, State, and national organizations now in the field must be encouraged to continue and to increase their efforts. Medical associations such as the American Academy of General Practice, the American Academy of Pediatrics, and the American Medical Association must be urged to further activity. Above all, the practicing physician who deals with parents and with children must be made aware of the problem and be stimulated to join his colleagues in an all-out campaign of education in this fight for the safety and welfare of our boys and girls.

Cardiovascular Training Center for Nurses

A pilot cardiovascular training center for nurses, the first of its kind, will commence operation January 1, 1956, at the University of Minnesota School of Public Health, according to present plans.

Cooperating in the project with the Public Health Service and the University of Minnesota are the Minnesota Department of Health and other agencies in Minneapolis and St. Paul which will offer trainees field experience in special services for cardiovascular patients.

The center expects to give nursing leaders a better understanding of new developments in the cardiovascular field and methods of applying them to the nursing care of patients, both in the home and hospital.

Applications for the training center are being received at the University of Minnesota School of Public Health, Minneapolis.